Before the

PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA

Docket No. 2009-411-G

ENERGY EFFICIENCY PROGRAM REPORT

June 12, 2014



Piedmont Natural Gas Company, Inc. Energy Efficiency Programs South Carolina

Docket No. 2009-411-G

INTRODUCTION

Piedmont Natural Gas Company, Inc. ("Piedmont" or the "Company") respectfully submits this report on the effectiveness of the Company's energy efficiency programs pursuant to the Public Service Commission of South Carolina's ("Commission") May 27, 2010, *Order Approving Energy Efficiency Programs* in Docket 2009-411-G, Order No. 2010-390. This report focuses on Piedmont's energy efficiency programs in effect during the period from April 1, 2013 through March 31, 2014 (Program Year 4).

BACKGROUND

On October 1, 2009, Piedmont filed its Petition for Approval of Energy Efficiency Programs. By a Revised Notice of Filing issued October 15, 2009, the Commission established December 21, 2009 as the deadline for the filing of petitions to intervene and scheduled this matter for hearing on February 11, 2010. On November 12, 2009, Piedmont filed its affidavits that such Notice had been properly published in the appropriate newspapers serving Piedmont's assigned service territory in South Carolina. Further, on December 9, 2009, Piedmont filed a certification of mailing with the Commission certifying that the Notice of Filing and Hearing had been mailed or provided in electronic format to all Piedmont customers in South Carolina.

On December 30, 2009, Piedmont filed the testimony of Steve Lisk supporting the Petition and the proposed Program Procedures. In its Petition, Piedmont submitted for Commission review and approval, the following three natural gas energy efficiency programs:

 Customer Education Program - a targeted marketing approach within the Piedmont South Carolina service territory to provide customer energy education, efficiency and conservation messages.

- Low-Income Energy Efficiency Program designed to provide energy efficiency measures and weatherization assistance to existing Piedmont low-income residential customers.
- 3. High-Efficiency Equipment Rebate Program designed to provide rebates to Piedmont's residential and commercial customers who purchase and install qualifying high efficiency natural gas equipment to replace existing natural gas equipment.

On January 27, 2010, Piedmont and the ORS entered into a Settlement Agreement with respect to Piedmont's program filings. As part of the Settlement Agreement, Piedmont and ORS agreed that Piedmont should be authorized to expend and recover from its South Carolina residential and commercial customers an annual cost of \$350,000 for the operation of the three energy efficiency programs. In addition, these programs would be considered experimental in nature and would operate for a period of three years. ORS and Piedmont further agreed that after a period of three years they would jointly or individually submit any proposed modifications to the programs or program expenditures for review and approval of the Commission. Also, as part of the Settlement Agreement, Piedmont agreed to submit to the ORS and the Commission, on an annual basis in conjunction with the Company's Rate Stabilization Act (RSA) process, a request for recovery of Piedmont's Energy Efficiency program costs for the twelve-month period ending March 31st. Finally, the parties agreed that this report would be submitted by June 15th of each year beginning in June, 2011.

On May 27, 2010, the Commission issued its Directive approving Piedmont's Energy Efficiency Programs.

On September 16, 2010, Piedmont requested that the Commission approve a modification to its Residential Low-Income Weatherization Program to allow the use of both the Federal Weatherization Assistance Program standard and the HUD standard in determining whether a residence qualifies as "low-income." This request was approved by the Commission on September 29, 2010.

On December 21, 2010, Piedmont requested that approximately \$25,000 of unexpended funds in the Residential Low-Income Program and approximately \$40,000 of unexpended funds in

the Customer Education Program be reallocated to the High Efficiency Equipment Rebate Program to meet higher than expected demand in the Rebate program. This request was approved by the Commission on January 12, 2011.

On January 3, 2012, Piedmont requested that approximately \$50,000 of unexpended funds in the Residential Low-Income Program and approximately \$38,000 of unexpended funds in the Customer Education Program be reallocated to the High Efficiency Equipment Rebate Program to meet higher than expected demand in the Rebate program. This request was approved by the Commission on January 18, 2012.

On January 16, 2013, Piedmont requested that up to approximately \$50,000 of unexpended funds in the Residential Low-Income Program and up to approximately \$35,000 of unexpended funds in the Customer Education Program be reallocated as needed to the High Efficiency Equipment Rebate Program to meet higher than expected demand in the Rebate program. This request was approved by the Commission on February 13, 2013.

On March 28, 2014, Piedmont requested to revise the allocation of funds among the three programs in a manner that was aligned with the average spending pattern for each EE program. The proposed new funding allocation was the following: Customer Education Program: \$15,000, Residential Low-Income Program: \$115,000, and the High-Efficiency Equipment Rebate Program: \$220,000. Piedmont also requested the flexibility to reallocate up to \$15,000 per program to another program without separately requesting additional approval by the Commission. These requests were approved by the Commission on April 9, 2014.

The Company's approved annual budget for energy efficiency programs in South Carolina is \$350,000 per year and Piedmont's actual expenditures for Program Year 4 were 99.5% of the budgeted annual costs. A summary of Program Year 4 funding is shown in Table 1.

Table 1 - Program Year 4 Funding

	Budgeted Annual Costs	Actual Expenditures ^A
Customer Education Program	\$50,000	\$8,042 ^B
Residential Low-Income Program	\$150,000	\$105,000°
High-Efficiency Equipment Rebate Program	\$150,000	\$235,128
TOTAL	\$350,000	\$348,170

A) Represents program expenses recorded between April 1, 2013 and the end of accounting month March 2014.

CUSTOMER EDUCATION PROGRAM

Piedmont initially budgeted \$50,000 for Program Year 4 to implement a communications campaign focusing on customer energy education, efficiency and conservation messages. Due to strong customer demand exhibited during Program Years 1 through 3 for the Equipment Rebate Program, it was decided to proceed slowly with spending customer education program funding during Program Year 4 in case funds would need to be reallocated to the Equipment Rebate Program. The Equipment Rebate Program during Program Year 4 did need additional funding and Piedmont reallocated \$41,958 of unexpended funds in the Customer Education Program to the High Efficiency Equipment Rebate Program. Table 2 shows the Customer Education Program expenditures for Program Year 4.

Table 2 – Customer Education Program expenditures in Program Year 4

	Budgeted Annual Costs	Actual Expenditures ^A
Customer Education Program	\$50,000	\$8,042 ^B
TOTAL	\$50,000	\$8,042

A) Represents program expenses recorded between April 1, 2013 and the end of accounting month March 2014.

Piedmont designed and distributed several targeted communication products to promote energy efficiency and conservation. Table 3 provides a description of each customer education piece

B) \$41,958 of budgeted funds were reallocated from the Customer Education program to the Equipment Rebate program.

C) \$45,000 of budgeted funds were reallocated from the Low-Income program to the Equipment Rebate program.

B) \$41,958 of budgeted funds were reallocated from the Customer Education program to the Equipment Rebate program.

that was administered during Program Year 4.¹ A copy of each customer education piece is shown in Exhibit A.

Table 3 - Customer Education Communication in Program Year 4

Communication Form	Date Administered	Message
Bill Insert	October 2013	Water heating energy saving tips
Bill Insert	January 2014	Saving energy during the winter months
Magazine Ad	December 2013	Saving energy during the winter months
Newspaper Ad	December 2013	Saving energy during the winter months

For Program Year 5, the Company will continue to monitor the demand and funding status of the Equipment Rebate Program to determine if there is a need to reallocate any Customer Education Program funding into the Equipment Rebate program. Based on the approval by the Commission on April 9, 2014, the new funding allocation for Program Year 5 for the Customer Education Program is \$15,000.

RESIDENTIAL LOW-INCOME ENERGY EFFICIENCY PROGRAM

The primary purpose of this program is to provide energy efficiency measures and weatherization assistance, through a third-party, to low-income residential customers in Piedmont's service territory. The program is intended to create a more energy efficient and comfortable home environment for the customers served. In addition to the actual energy savings, there can be additional benefits to the low-income customer including improved health and safety, and increased comfort.

The target population for this program is low-income customers dwelling in single-family homes that are served under Piedmont's residential rate schedules (Rate Schedules 201 and 221). For the purposes of this program, Piedmont considers a customer to be "low-income"

¹ In addition to these SC customer education materials, bill inserts were sent out to customers in all Piedmont's service territories. Some of these mailings included recurring annual bill inserts that were not paid for through funds dedicated for the SC Energy Efficiency Program. These bill inserts dealt with Piedmont's energy savings on-line tools, cold weather energy saving tips and saving money with natural gas water heaters.

based on guidelines established for the Federal Weatherization Assistance Program or by the United States Department of Housing and Urban Development ("HUD"). When applicable, priority is placed on providing assistance to those eligible elderly individuals with disabilities and eligible families with children.

The primary energy efficiency measures provided to each program participant are based on a comprehensive in-home energy audit. The measures offered and performed for program participants may include:

- Sealing major air leaks in floors and ceilings (penetrations, bypasses, chases)
- Insulating attic, side wall, and/or floors
- Sealing and insulating ducts
- Installing programmable/setback thermostat
- Evaluating, cleaning and tuning heating systems
- Installing general heat waste measures (furnace filters, water heater insulation wrap, piping insulation, water-saving devices, and weather-stripping)

The energy contractor decides, primarily guided by the results of the in-home energy audit, which energy saving measures to install at the participant's home. The energy audit helps the energy contractor determine which energy saving measures would provide the greatest benefit to the participant. Due to safety concerns, a carbon monoxide detector is installed inside the participant's home if one is not currently installed.

Piedmont is currently working with two different organizations to administer the Low-Income Program. Piedmont has been able to leverage its funding with these organizations since they were already involved with the weatherization of low-income homes in Piedmont's service territory. Specifically, Piedmont is working with the Furman University Community Conservation Corps ("Furman CCC") in the Greenville area and with Piedmont Community Actions ("PCA") in Spartanburg and Cherokee counties. For Program Year 4, Piedmont provided \$60,000 in program funding to the Furman CCC program and \$45,000 to the PCA program. During Program year 1, Piedmont was not able to get started working with these two organizations as quickly as initially anticipated due to filing changes to the program income guidelines, scheduling conflicts and also the time required to complete the contractual agreements. This delay also pushed back the funding start dates for the subsequent Program Years. The Furman CCC and PCA are both still working from Program Year 4 funding.

Furman CCC did not receive funding for Program Year 4 until August 2013. PCA did not receive funding for Program Year 4 until March 2014 and this was because they were still utilizing Program Year 3 funding as a result of finishing up some of their weatherization efforts directed toward the Federal Weatherization Assistance Program funding. Table 4 summarizes the Low-Income Program expenditures.

Table 4 - Low-Income Program expenditures in Program Year 4

	Estimated Annual Costs	Actual Expenditures ^A
Low-Income Program	\$150,000	\$ 105,000 ^B
TOTAL	\$150,000	\$105,000 ^B

A) Represents program expenses recorded between April 1, 2013 and the end of accounting month March 2014. B) \$45,000 of budgeted funds was reallocated from the Low-Income program to the Equipment Rebate program.

Tables 5 and 6 show the program status (as of May 30, 2014) for each organization and reflects the Program Years 3 and 4.

Table 5 - Program Year 3 Low-Income program summary

Furman CCC		
Counties Served	Greenville Program year funding is depleted.	
Funding Status		
Additional Information	Completed 12 homes through the program and this served 30 resident living in these 12 homes. Some of the work included: energy audits blower-door testing, installing weather-stripping on doors/windows installing attic and sidewall insulation, air sealing, reattaching ductwork air sealing and insulating ductwork, and fixing and installing smoke/CO detectors. This included funding for items such as replacing broke furnace parts or relocating natural gas appliances to follow state building codes. Over the course of Program Year 3, the Furman CCC utilized 50 volunteers and contracted with 9 different campus groups.	

Piedmont Community Actions		
Counties Served	Spartanburg and Cherokee	
Funding Status	Program year funding is depleted.	
Additional Information	Completed 16 homes through the program. The average age of the homes weatherized was around 30 years old. One homeowner is 100 years old and is much more comfortable since repairs were made to her ductwork and new sidewall insulation was installed. Another homeowner was disabled with two small children and was able to get an unsafe furnace replaced due to its condition. PCA was able to leverage Piedmont's funding with their Federal Weatherization Assistance Program funding to increase the number of homes served in their area.	

Table 6 – Program Year 4 Low-Income program summary

Furman CCC		
Counties Served Greenville		
Funding Status	They have 9 homes that have either been weatherized or are in the process of being weatherized. This program is still in progress. They also have up to 10 homeowners on the waiting list.	

Piedmont Community Actions		
Counties Served	Spartanburg and Cherokee	
Funding Status	This program is still in progress.	

Since both organizations are still in progress the final summary for Program Year 4 will be reported in the June 15, 2015 annual report.

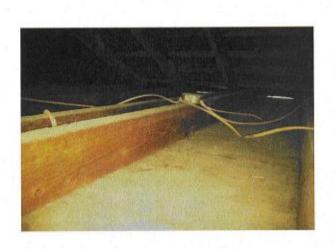
Below are some pictures related to home weatherization work that was done.

Furman CCC contractors/volunteers working on weatherizing a home





Home with no insulation / Adding insulation to attic





Unsafe dryer plug discovered during energy audit (replaced with new plug because it was an electrical hazard)



The overall vision of the Furman CCC is to promote financial and environmental stability within a safe, quality living environment for all individuals in need. Piedmont's funding has allowed the Furman CCC to continue its program and has helped students get involved in activities where they are able to give back to the community. The CCC started out as a partnership among Furman University's Heller Service Corps, Furman's Community Relations Department, Furman's Shi Center for Sustainability, the City of Greenville, the Greenville County Redevelopment Authority, and the United Way of Greenville County, along with other stakeholders, to provide home weatherization and education services to Greenville residents who qualify for assistance. Originally two AmeriCorps members, supported through the United Way of Greenville and Furman University, administered the program. Through this partnership, Furman students, under the guidance of the AmeriCorps members and weatherization professionals, provided education to homeowners, as well as weatherization services for homes which met the guidelines for qualification. In the fall of 2013, the Furman CCC formed a partnership with the Habitat for Humanity of Greenville County to work jointly to provide low-income weatherization services.

The Furman CCC spends some of its time developing an outreach strategy to recruit homeowners for the weatherization assistance program. The organization attends neighborhood association meetings that are in low-income areas to share information with residents about the program. The Furman CCC also works with other local agencies to promote the program, and information about the program is listed on the Furman website (www.furman.edu/ccc). The group works with Furman's Marketing and Public Relations department to design door hangers to market the program and look at other outreach events in the local community.

The Furman CCC has a strong presence in low-income neighborhoods in the Greenville Community. They have also weatherized homes in different surrounding towns as well including Mauldin, Travelers Rest, Moonville, Taylors, and Greer, all of which are located in Greenville County. As with many low-income communities, the quality of housing is usually substandard at best. Many of the clients reside in old mill communities with some homes that were built nearly 100 years ago.

After eligible participants are identified for the program, the Furman CCC has the participant fill out an application form and then it is reviewed to verify the income level and confirm the participant is a Piedmont customer. If the homeowner is qualified for the program, a preweatherization meeting is scheduled with the homeowner to go over the process and answer any questions about the program. The Furman CCC then utilizes an experienced energy auditing company to administer the home energy audit and determine what type of energy efficiency improvements can be performed on the home. The energy auditor also identifies any unsafe conditions. After each home is completed, the resident receives information about how to further reduce their energy usage and they are also provided with some energy saving tips. After energy improvement needs are addressed, the Furman CCC primarily works with local energy contractors to complete the work. In some cases, they attempt to incorporate student volunteers to help out with the energy efficiency improvements, but this depends upon the number of volunteers and the availability of scheduling with the homeowner.

In January of 2014, the Furman CCC was featured in an article on the front page of the metro section of the Greenville News highlighting some of the work done in the community. Here is a picture from the article of the Furman CCC weatherization coordinator.



Then in February of 2014, the Furman CCC was named a finalist in the 2014 Second Nature Climate Leadership Awards, an annual competition among U.S. colleges and universities that are signatories of the American College & University Presidents' Climate Commitment (ACUPCC). The awards program is sponsored by Second Nature, a national nonprofit that seeks to create a sustainable society by transforming higher education, and Planet Forward, an organization that engages innovators and publishes compelling ideas for some of society's biggest challenges. Below is the link to the video which highlights some of the weatherization work that has been done through the Furman CCC.

www.planetforward.org/idea/centering-sustainability-furmans-community-conservation-corps

In the Spartanburg/Cherokee area, Piedmont's funding is being used to help leverage existing Federal Weatherization Assistance Program ("Federal WAP") funds that are being administered through Piedmont Community Actions. The Weatherization Assistance Program for SC is run through the SC Office of Economic Development. The Weatherization Assistance Program for each of the state's 46 counties is coordinated through 14 community

organizations that administer the Federal WAP program in SC. This program is paid through the annual Federal WAP funding. PCA has been administering the Federal WAP in Spartanburg and Cherokee counties for over 20 years. Piedmont worked with PCA to identify specific energy efficiency improvements for which Piedmont's funding could be used, and thus Piedmont's funding helps supplement work that PCA is doing under the Federal WAP.

Additional information about the Furman CCC program is shown in <u>Exhibit B</u>. Piedmont plans to continue working with the Furman CCC and PCA in Program Year 5.

HIGH EFFICIENCY EQUIPMENT REBATE PROGRAM

This program provides rebates to Piedmont's residential and commercial customers who purchase and install qualifying high efficiency natural gas equipment. The residential rebates apply to high efficiency water and space heating equipment, since water heating and space heating constitutes a large portion of residential energy usage. Commercial customers are offered a rebate on the purchase and installation of a high efficiency tankless water heater.

This program enables customers to offset some of the higher cost of choosing a more efficient piece of equipment. This program is intended to help influence a customer to choose a more energy efficient piece of equipment. An upgrade to a higher efficiency water heater or furnace, given consistent usage patterns, will help the program participant achieve recognizable energy savings. The extent of the energy savings will vary for each participant, depending on a variety of factors including their current energy efficiency. Tables 7 and 8 summarize the equipment rebates that are offered and the corresponding equipment efficiency requirements.

Table 7 – Residential Equipment Rebate Summary

	Rebate Amount	Minimum Required Efficiency
Natural Gas Storage Tank Water Heater	\$ 50	EF = 0.62 (or higher)
Natural Gas Tankless Water Heater	\$ 250	EF = 0.82 (or higher)
Natural Gas Forced Air Furnace	\$ 300	AFUE = 90% (or higher)

A) EF is the Energy Factor; AFUE is the Annual Fuel Utilization Efficiency

Table 8 - Commercial Equipment Rebate Summary

	Rebate Amount	Minimum Required Efficiency ^A
Natural Gas Tankless Water Heater	\$ 250	EF = 0.82 (or higher)

A) EF is the Energy Factor

This program is available to customers under Piedmont's residential rate schedules (Rate Schedules 201 and 221) and commercial rate schedules (Rate Schedules 202, 232, 252 and 262). Each customer is required to submit a rebate application, along with proof of purchase and installation of the qualifying equipment. Upon approval of the application, the rebate check is mailed to the customer. In addition, each rebate recipient receives an energy efficiency kit that includes items to help further reduce their natural gas energy usage. The energy efficiency kit includes the following:

- (1) Low-flow showerhead
- (1) Low-flow kitchen aerator
- (2) Low-flow faucet aerators
- (2) Weatherstripping rolls
- Thank you letter, energy conservation tips, water saving tips

Piedmont has received positive program feedback from our customers, as well as from the contractors who have used this program to encourage the purchase of high-efficiency natural gas equipment.

To ensure compliance with its eligibility criteria, Piedmont verifies that each rebate applicant is indeed a Piedmont customer and confirms that the installed equipment model meets all the program equipment efficiency criteria. For Program Year 4, there were 676 eligible rebate applications that were processed and an additional 11 rebate applications that were determined to be ineligible. For each ineligible application, a letter was mailed to the applicant with an explanation of why the rebate application was deemed ineligible.

Table 9 shows the number of approved rebate applications, by customer sector:

Table 9 - Number of approved rebate applications in Program Year 4

TOTAL	676
Commercial Rebate Applications	2
Residential Rebate Applications	674

Table 10 shows the equipment installation count associated with the Program Year 4 rebate funds. Because some customers installed multiple pieces of equipment at their service address, the number of equipment installations exceeds the number of approved rebate applications.

Table 10 - Equipment installed per approved rebate applications in Program Year 4

	Storage Water Heater (EF = 0.62 or higher)	Tankless Water Heater (EF = 0.82 or higher)	Forced Air Furnace (AFUE = 90% or higher)	TOTAL
Residential Equipment Installed	5	86	649	740
Commercial Equipment Installed	N/A	2	N/A	2
Total	5	88	649	742

Table 11 shows the Equipment Rebate program expenditures for Program Year 4. The original \$150,000 program budget was supplemented with an additional \$86,958, which was part of the reallocation unexpended funds from the Residential Low-Income Program and the Customer Education Program.

Table 11 - Equipment Rebate Program expenditures in Program Year 4

	Budgeted Annual Costs	Actual Expenditures ^A
Program Development and Administration	\$12,500	\$6,486
Communications	\$10,000	\$9,297
Rebate Incentives	\$122,500	\$216,950 ^B
Evaluation, Measurement & Verification	\$5,000	\$2,395
TOTAL	\$150,000	\$ 235,128

A) Represents program expenses recorded between April 1, 2013 and the end of accounting month March 2014

For the Program Year 1 analysis, Piedmont worked with an energy consultant to determine the achieved energy savings for the residential participants. Based on funding limitations, Piedmont is using the same achieved energy saving values for Program Year 4. Since there were not enough commercial installations to perform an accurate statistical analysis of the achieved energy savings, the initial deemed savings value is being used as a proxy for the achieved energy savings. For the residential analysis, the consultant reviewed Piedmont's initial deemed savings and performed a billing analysis of the customers' installed equipment. The consultant used a per-heating-degree-day modeling approach since there were limited numbers of 12-months post data due to the timing of the analysis. Table 12 shows the savings per residential customer that is being used for the Program Year 4 analysis.

B) Includes \$86,958 of reallocated funding from the Customer Education and Low-Income program

Table 12 - Deemed and Billing Analysis Gross Savings per Residential Customer

Measure	Original Deemed Annual Savings ^A (Therms)	Billing Analysis Annual Savings ^B (Therms)
Residential Storage Water Heaters (EF=0.62 or higher)	12.6	12.6 ^C
Residential Tankless Water Heaters (EF=0.82 or higher)	72.9	43
Residential Furnace (AFUE = 90% or higher)	81	110

A) Deemed Savings is the measure-level savings values as utilized in Piedmont's original program planning analysis. Deemed savings were determined by estimating the energy savings based on a baseline efficiency for each piece of equipment.

Table 13 represents the annual energy saving comparisons based on the initial deemed energy savings and the achieved energy savings. The total deemed annual savings shown is based on the original estimated number of participants and the original deemed savings values, including both the residential and commercial customers. The total annual savings is based on the actual number of installations shown in Table 9 (including installations from reallocated funds) and the savings based on the billing analysis, including both the residential and commercial customers.

B) Billing Analysis is the measure-level savings values estimated by the energy consultant. This analysis looked at the customer's energy consumption, average heating degree days, and the average daily energy savings. This complex model used a weighted approach to compensate for any missing pre and post-installation consumption data.

C) Due to the low number of installed storage water heaters, there was not enough data to analyze the storage water heater energy savings; the initial deemed savings value was used a proxy for the achieved annual savings.

Table 13 - Total Program Annual Energy Savings

Measure	Original Deemed Total Annual Savings (Therms)	Total Achieved Annual Savings per Billing Analysis (Therms)	
Storage Water Heaters (EF=0.62 or higher)	315	63	
Tankless Water Heaters ^A (EF=0.82 or higher)	13,231	4,043	
Furnace (AFUE = 90% or higher)	13,300	71,390	
Sub-Total	26,846	75,496	
Weatherization Kits Mailed Out ^B (Residential Only)	12,390	5,965	
TOTAL	39,236	81,461	

A) Includes both residential and commercial installations.

The total dollar savings and average savings per customer were calculated using the achieved energy savings, the number of equipment rebates issued, and the average SC rates during Program Year 4. There were not enough commercial installations to get an accurate analysis so the original commercial deemed savings were utilized. This is shown in Table 14.

Table 14 – Total Rebate Program Annual Dollar Savings^A

	Average Annual Dollar Savings per Customer	Total Annual Dollar Savings
Residential	\$ 113.70	\$ 76,631.37
Commercial	\$ 146.63	\$ 293.26
TOTAL	\$ 113.79 ^B	\$ 76,924.63

A) The dollar savings were calculated by using the average SC residential/commercial rates for Program Year 4. This is based on the weighted average of the actual number of customers per rate class.

B) For the achieved annual savings, assuming 50% installed and achieved savings of 50% of deemed savings.

B) Average total annual dollar savings per customer based on the total annual dollar savings divided by the total number of residential and commercial customers.

Piedmont worked with an energy consultant to determine the cost-effectiveness testing and the consultant analyzed the data based on the number of equipment rebates issued in Program Year 4 and the analyzed energy savings per measure.

The energy consultant used the tests as defined by the California Standard Practice Manual to evaluate the cost-effectiveness of this program. This analysis of program costs and benefits included the following:

- Total Resource Cost Test (TRC): This test examined the program benefits and costs from the perspectives of Piedmont and its customers. Benefits included fuel cost reductions, and costs included those incurred by Piedmont and the program participants.
- Utility Cost Test (UCT): This test examined the program benefits and costs from Piedmont's perspective. Benefits are in the form of reduced fuel costs while costs included any incurred administrative, measure, or incentives costs. This test is also commonly referred to as the Program Administrator Cost Test.
- Participant Cost Test (PCT): This test examined the benefits from a program participant
 perspective. Costs included any measure costs incurred by the participants. Benefits
 included rebates paid by Piedmont and bill reductions due to implementing the efficiency
 measures.

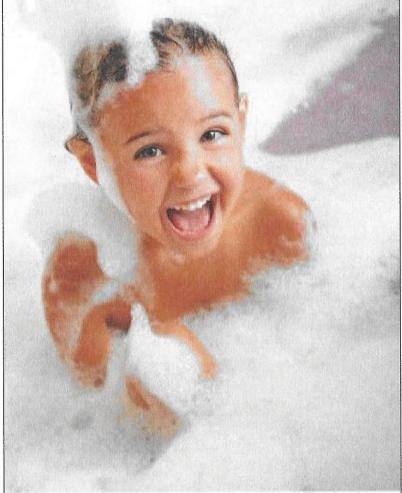
The energy consultant evaluated the cost-effectiveness testing at a program level for the Equipment Rebate program and the results were calculated by analyzing the planning avoided gas costs and also the program year avoided gas costs. For the main tests, the TRC and the UCT, the results were greater than 1.0 which signifies that the program is considered cost-effective. The achieved energy analysis savings are shown as a ratio of the program benefits to program costs. The results are shown in Table 15.

Table 15 – Equipment Rebate Program Cost-Effectiveness Results for Program Year 4

Test	Achieved Energy Analysis Savings (Planning Avoided Costs)	Achieved Energy Analysis Savings (Program Year Avoided Costs)
Total Resource Test (TRC)	2.37	1.70
Utility Cost Test (UCT)	3.21	2.27
Participant Cost Test (PCT)	2.28	2.28

EXHIBIT A

SAVE ENERGY and money with these WATER HEATING TIPS!



IAHORRE ENERGÍA y dinero con estos CONSEJOS PARA CALENTAR AGUA!

DID YOU KNOW?



Water heating is the third largest energy expense in your home!

¿SABÍA USTED?

lCalentar agua es el tercer mayor gasto de energía en su hogar!

> 10.2013 PNG05i

WATER HEATING TIPS FROM PIEDMONT NATURAL GAS:

Consejos para calentar agua de Piedmont Natural Gas:

 Upgrade your old natural gas water heater to a new high-efficiency model with an Energy Factor of up to 0.98

Cambie su viejo calentador de agua para gas natural por un nuevo modelo de alta eficiencia con un factor energético de hasta 0.98.

If you're purchasing a new dishwasher or clothes washer, be sure it's ENERGY STAR rated

Si está comprando una lavadora o un lavavajillas nuevo, asegúrese de que tenga la calificación ENERGY STAR.

 Install a low-flow faucet and showerhead to reduce your water flow by as much as 50 percent

Instale grifos y regaderas de bajo flujo para reducir su flujo de agua hasta en un 50 por ciento.

For more helpful information about saving energy please visit us at **piedmontng.com** or you can also check out: **energysavers.gov**.

Para obtener más información útil sobre cómo ahorrar energía visítenos en piedmontng.com o también puede dar un vistazo a: energysavers.gov.







piedmontng.com 1.800.752.7504



10.2013 PNG05i



GET READY TO SAVE ENERGY

during the winter months

- a qualified professional to ensure it is working properly
- Change or clean your furnace filters each month during the heating season
- Upgrade your old furnace to a new high-efficiency model (Newer models can be up to 98% efficient!)
- Install a programmable thermostat to maximize your energy savings
- · Seal leaks around doors and windows with caulk or weather-stripping to reduce unwanted drafts

For more helpful information about saving energy please visit us at piedmontng.com or you can also check out: energysavers.gov





Learn more at piedmontng.com or give us a call at 1.800.752.7504.

during the winter months PREPARESE PARA

AHORRAR ENERGIA

durante los meses de inveierno

10.2013 PNG09i Have your heating system inspected each year by a qualified professional to ensure it is working properly

Haga que un profesional calificado inspeccione su sistema de calefacción todos los años para a segurar que esté funcionando apropiadamente

 Change or clean your furnace filters each month during the heating season

> Cambie o limpie los filtros de las calderas todos los meses durante la temporada de uso de calefacción

 Upgrade your old furnace to a new high-efficiency model (Newer models can be up to 98% efficient!)

Cambie su vieja caldera por un nuevo modelo de alta eficiencia (ILos modelos más recientes pueden tener una eficiencia de hasta el 98%I)

Install a programmable thermostat to maximize your energy savings

Instale un termostato programable para maximizar sus ahorros de energía

 Seal leaks around doors and windows with caulk or weather-stripping to reduce unwanted drafts

Selle los espacios alrededor de las puertas y ventanas con masilla o cinta espuma para reducir las corrientes de aire no deseadas

For more helpful information about saving energy please visit us at piedmonting.com or you can also check out: energysavers.gov.

Para obtener más información útil sobre cómo ahorrar energía visítenos en piedmontng.com o también puede dar un vistazo a: energysavers.gov.



piedmontng.com 1.800.752.7504





GET READY TO SAVE ENERGY

during the winter months

- Have your heating system inspected each year by a qualified professional to ensure it is working properly
- Change or clean your furnace filters each month during the heating season
- Upgrade your old furnace to a new high-efficiency model (Newer models can be up to 98% efficient!)
- Install a programmable thermostat to maximize your energy savings
- Seal leaks around doors and windows with caulk or weather-stripping to reduce unwanted drafts

For more helpful information about saving energy please visit us at **piedmontng.com** or you can also check out: **energysavers.gov**.



Energy that shows."



Learn more at piedmontng.com or give us a call at 1.800.752.7504.

EXHIBIT B

A > Sustainability » Community Outreach » Community Conservation Corps



The Community Conservation Corps provides free home weatherization to low income homeowners in the greater Green community. We are a grant-funded program through the United Way of Greenville County's Corps United Program, staffe AmeriCorps members throughout the community with the mission of improving the financial stability throughout Greenvil mission of the Community Conservation Corps is to reduce energy consumption and promote the financial stability of hor through weatherization, energy conservation, and education.

The Community Conservation Corps strives to provide our clients with significant monetary savings on their home energy through free home weatherization, and to educate the community about the importance and advantages of energy conse ensure a positive and professional experience for our clients the CCC uses experience and certified home energy auditor determine a home's needs based upon an energy audit. Expert contractors will then perform whatever services a client's need, and provide them with the most relevant information for their household.

We estimate that through Home Weatherization we can provide residents savings of at least 30% on energy bills. The CC with BPI certified contractors and auditors to provide whatever adjustments a client's home may need, such as added or insulation around water heaters and in attics and crawlspaces, weather stripping, air-sealing, vapor barriers, safety check combustion appliances, and more all free of charge.

How to apply

Come submit your home for a free home weatherization! We want to help as much of Greenville as possible by saving yo and protecting our environment. Homeowners can see if they qualify by learning more here.

Additional Resources

Not eligible for weatherization? No worries, you can click on the link below to learn about all the different programs and ti there that you can use in your own home. All of the resources on the following page have helped us improve our program save you lots of time and money as well. Click Here for more Energy Efficiency Resources.

Volunteer with us

Thank you for your interest in serving the Greenville Community! By volunteering with the CCC you can become a vital p helping homeowners conserve energy and save money. There are a number of ways individuals can volunteer with the C ranging from supervised basic construction and energy efficiency measures, to event planning and outreach. You do not a Furman student to volunteer. Download our Adult and Minor waivers here.

Contact us

If you want to learn more about the Community Conservation Corps, or just learn more about the many benefits of gree get in touch with us today:

Andy Wailin

Community Conservation Corps Program Coordinator Mon-Thu, 9:00-1:00 **Office Hours:** (864) 294-3680 (864) 294-2512

andy.wallin@furman.edu

♠ > Sustainability » Community Outreach » Sustainability



How To Apply

Owning a home can be challenging. Paying for energy bills, mortgages, and physical maintenance can leave homeowners difficult financial situation. That's why the Community Conservation Corps provides a free, preventative service to decreas bills and make homes safer. Each home is thoroughly checked by an auditor using highly accurate tools in order to quickly what it may need. A construction crew assisted by volunteers from Furman and AmeriCorps perform the weatherization re

In order to receive weatherization assistance, residents must:

- Live in and own their home
- Reside in Greenville County
- Have homeowner's Insurance
- Be a Piedmont Natural Gas customer (not required, but currently there is only funding for gas customers)
- Fall at or below the following income guidelines:

Annual Income
\$24,400
\$27,900
\$31,400
\$34,800
\$37,600
\$40,400
\$43,200
\$46,000

Apply now for help with your home. To apply please provide:

- Completed Weatherization Application
- Completed PNG disclosure form (Only for Piedmont Natural Gas Customers)
- Completed Duke Energy Disclosure Form (Only for Duke Energy Customers)
- Proof of income
- Proof in homeowner's insurance



Vince Moore, Director News and Media Relations vince.moore@furman.edu 864.294.3107

FURMAN UNIVERSITY FORGES PARTNERSHIP WITH HABITAT FOR HUMANITY

Partnership advances work of CCC in residential energy conservation efforts

FOR IMMEDIATE RELEASE

GREENVILLE, S.C.—The David E. Shi Center for Sustainability at Furman University has partnered with Habitat for Humanity of Greenville County to advance the work of Furman's Community Conservation Corps (CCC), a grant-funded program through the United Way of Greenville County's Corps United Program.

The mission of the Community Conservation Corps is to reduce energy consumption and promote the financial stability of homeowners through weatherization, energy conservation, and education. The new partnership will enable the program to reach more homes, engage additional volunteers, and educate students about energy efficiency. To date, the CCC has weatherized 45 area homes.

According to program coordinator Andy Wallin, "The CCC is a great example of Furman and Habitat's commitment to the social, economic and environmental dimensions of sustainability. We are enhancing the quality of life in underserved communities, decreasing homeowners' energy bills, and reducing coal and gas emissions from power plants by limiting wasted energy use."

CCC home weatherizations are completed at no cost to eligible homeowners. The average utility bill can be reduced 20 to 35 percent, and current funding supports approximately 15 to 20 weatherizations a year. The process includes a pre- and post-weatherization audit, and application of such techniques as insulation, duct sealing, pipe insulation, and servicing of HVAC units.

To qualify for weatherization assistance through the CCC, an individual must reside in his or her home, fall at or below income requirements of 60 percent Average Median Income (AMI), and share utility bills for analysis of program energy savings, among other requirements.

Furman students volunteer to help with home weatherizations, attend workshops to learn about the work of the CCC, and review data to determine program impact.

The CCC is made possible through generous support by Piedmont Natural Gas and the Arthur Vining Davis Foundation.

More information about the CCC can be found online at this <u>link</u> and on Facebook <u>here</u>. Or contact Andy Wallin at the David E. Shi Center for Sustainability at 864-294-3680.

Why Weatherize???

Weatherization is a win-win...for you and the environment!

Conserving energy will ultimately reduce household energy bills. Energy-saving modifications to a home can save residents hundreds of dollars per year and help the environment by reducing harmful CO2 emissions and other pollutants.



The mission of the Community Conservation Corps is to reduce energy consumption and promote the financial stability of homeowners in the greater Greenville community.

How To Apply

Visit us online:

Website: www.furman.edu/ccc
Facebook: Community Conservation Corps
Twitter: CCCWeatherize

For more information contact:

Andy Wallin 864-294-3680 andy.wallin@furman.edu

Mail Completed Applications to:

Community Conservation Corps
David E. Shi Center for Sustainability
Furman University
3300 Poinsett Highway
Greenville, SC 29613

The Community Conservation Corps is made possible thanks to:

Furman University
Habitat for Humanity of Greenville County
Piedmont Natural Gas Foundation
Arthur Vinings Davis Foundation

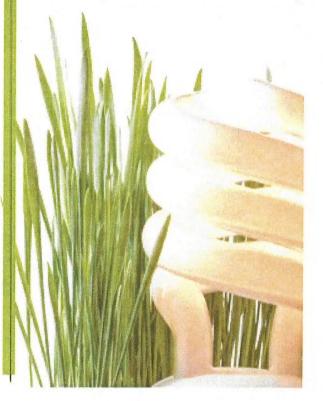






Community Conservation Corps

A partnership between the David E. Shi Center for Sustainability at Furman University and Habitat for Humanity of Greenville County



Ready?

Set...

Weatherize!

In order to qualify for FREE home weatherization assistance from the CCC, a homeowner must:

Own and reside in their home

Agree to a pre- and post- audit

Be willing to share their energy bills

Be a resident of Greenville County

Have homeowners insurance

Fall at or below the following income guidelines

Number in	Annual Income	
Household		
1	\$24,400	
2	\$27,900	
3	\$31,400	
4	\$34,800	
5	\$37,600	
6	\$40,400	
7	\$43,200	
8	\$46,000	

Based on U.S. Dept of Housing and Urban Development May, 2010

Statement of Inclusion
The CCC values and operates by a policy of inclusion,
providing equal opportunity to all persons regardless
of race, color, religion, age, national origin, marital
status, sexual orientation, gener identity, and/or
disability

The first step in weatherization is a professional pre-weatherization energy audit. A post audit is performed after weatherization is completed.



A Building Performance Institute (BPI) certified energy auditor uses advanced tools such as a blower door to expertly identify areas of the home that need efficiency improvements.



The CCC has partnered with Habitat for Humanity of Greenville County to perform weatherization on your home by using student and community volunteers.



Weatherization measures may include but are not limited to:

--

- -Insulation
- -Weatherstripping
- -Water heater blankets
- -Pipe Insulation
- -Energy Efficient CFL bulbs
- -Water saving faucet aerators
- -Duct Sealing
- -Servicing of HVAC and appliances

Community Conservation Corps Application for Weatherization

This application is for free Home Weatherization with the Community Conservation Corps at Furman University and in conjunction with Habitat for Humanity of Greenville County. This program is designed to help low-income households save money on utility bills. The CCC is funded by Piedmont Natural Gas, TD Charitable Foundation, and Bank of America. You must provide the total gross income for the specified period for all members of the household. It is illegal to obtain assistance by giving false information

	<u>Appli</u>	cant Information		
Date				
Name				
Address				
City		State Zip Code_		
County of Residence				
Do you live in a specific neigh	aborhood or community?	(i.e. Belle Mead, Nicholtown, etc.)_		
Date of Birth		Age		
Email Address				
Home Phone		Cell Phone		
Convenient Time to Call				
Total number of people living	g at residence			
Please list all residents below	r.			
Name	Date of Birth	Relationship to homeowner	Income*	Disabled?

^{*}Income for the month before application. Income from all sources (including social security, retirement, etc) must be calculated before taxes and deduction. Proof of income must be attached to application in order to be considered for weatherization services. Additional residents may be added to the back of application if necessary.

Home Site Information

In this section please provide information on your current utility providers and information on your home.

Has your home ever been previously weatherized? Y N If so, in what year was it weatherized
Electricity Provider
Account Number
Are you a customer of Piedmont Natural Gas? Y N
Piedmont Natural Gas Account Number (if applicable)
How do you cool your home?
How do you heat your home?
Date of Construction (if known)
Are you active military personnel or a military veteran with an honorable or general discharge? Y N
What weatherization measures do you feel your home may need?
Do you have home insurance? Y N
How did you hear about the Community Conservation Corps?

Please attach all required documentation to this application. Weatherization services cannot be attained without all proper documentation. A document checklist has been provided with your application in order to access what documents are required for program qualification.

Terms and Conditions

The Furman Community Conservation Corps and Habitat for Humanity of Greenville County values and operates by a policy of inclusion, providing equal opportunity to all persons regardless of race, color, religion, age, national origin, marital status, sexual orientation, gender identity, and/or disability.

Client information is maintained strictly in order to monitor effectiveness of this program, and your responses are entirely voluntary. Documentation of eligibility is required for every dwelling weatherized. Failure to provide information requested on the Community Conservation Corps Application for Weatherization will prevent administration of services. The information, which you provide, will be used in monitoring and evaluating the effectiveness of the weatherization program.

I agree and understand that if my home is deemed unsafe or unacceptable for weatherization contractors, auditors, or volunteers to perform their duties due to unsafe or dangerous conditions, presence of debris, clutter, mold, insect/rodent infestation, pets, threat of violence, etc., the project will be postponed until these conditions are corrected.

I hereby give permission to the Community Conservation Corps, Habitat for Humanity of Greenville County, and their subcontractors the right to inspect and photograph the real property I occupy in order to determine and document weatherization needs, and after weatherization, to verify the work and its effectiveness in meeting program goals.

My signature below certifies the information above is correct to the best of my knowledge, and that my home is not for sale. In addition it authorizes the release of income and utility usage records to the Community Conservation Corps.

I also hereby state that no one in my household has any judgments against them and the mortgage on my home is not delinquent, in forbearance, or involved in an ongoing foreclosure case.

Signed By Date

If printing this form, please return by mail to the address below:

Community Conservation Corps David E. Shi Center for Sustainability

Furman University 3300 Poinsett Highway

Greenville, SC 29613

DREAMING BIG

Greenville and Shi Center student fellow Hayden Couvillion '15 are dreaming big together. For the last two years, nonprofit Dream Big Greenville (DBG) has been working with partners to raise funds to construct an outdoor recreation visitor's center showcasing the Upcountry's natural beauty and cultural attractions. Construction on Reedy Square—to be located in downtown Greenville near the Swamp Rabbit Trail—is scheduled to begin in 2015.

A Greenville native, double majoring in Political Science and Sustainability Science, Couvillion spent last summer and academic year as a Student Fellow placed by the ShI Center with DBG. In his role, Couvillion has developed donor lists, crafted a plan for legislative funding, and produced public presentations explaining the proposed economic benefit of Reedy Square. He also helped develop educational programs that will emphasize the area's natural attractions: hiking/blking tralls, trout fishing, and whitewater waterfalls and lakes.

Couvillion says "the student fellowship has shown me how I can make a difference in my community. I've played a part in developing an exciting and distinctive project that will take Greenville to the next level."

SPEAKING OF SUSTAINABILITY

Lectures and speakers by internationally recognized scholars and sustainability advocates brought new ideas to campus—and validation that the Shi Center is a national leader in sustainability,

Among those who made their way to Greenville was Nell Newman, who has used her notoriety and business savvy to promote sustainable agricultural practices and build a company that markets organic products. Profits from her company, Newman's Own Organics, fund educational and charitable enterprises.

Earlier this year Newman visited Furman as part of the speaker series that drew eight noted authors and authorities throughout the year. The speakers encouraged students to explore how we grow our food and to think about what we consume.

Lecturé Series

Dr. Paul Wise Guatemalan socioeconomic health policy, children's health policy and socioeconomics

Dr. Katharine Wilkinson God and the environment

Dr. Eleanor Finnegan Islam and environmentalism

Food for Thought Series

Nell Newman founder and CEO of Newman's Own Organics spoke about sustainable agriculture topics

Anthony Flaccavento Building a Better World from the Garden to the Capitol Danielle Nierenberg founder of Food Tank, a food systems think tank

Jonathan Bloom and panel Food Waste: American Wasteland

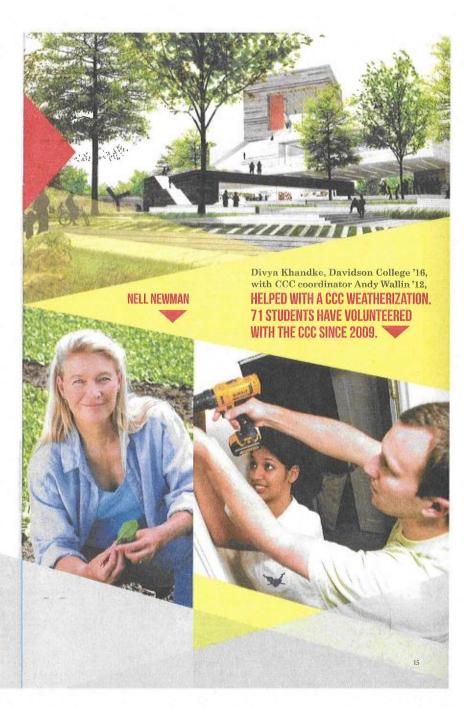
Zev Friedman permaculture workshop

THE CORE OF THE COMMUNITY CONSERVATION CORPS

For many low- to moderate-income Greenville residents, extreme weather creates more than physical discomfort. Rising monthly utility costs can be crushing.

Since its founding in 2010, the Community Conservation Corps, coordinated by Shi Center staff, AmeriCorps members and Student Fellows, has worked with Greenville partners to weatherize 42 homes in economically disadvantaged neighborhoods. On average, residents save 35 percent on their energy bills.

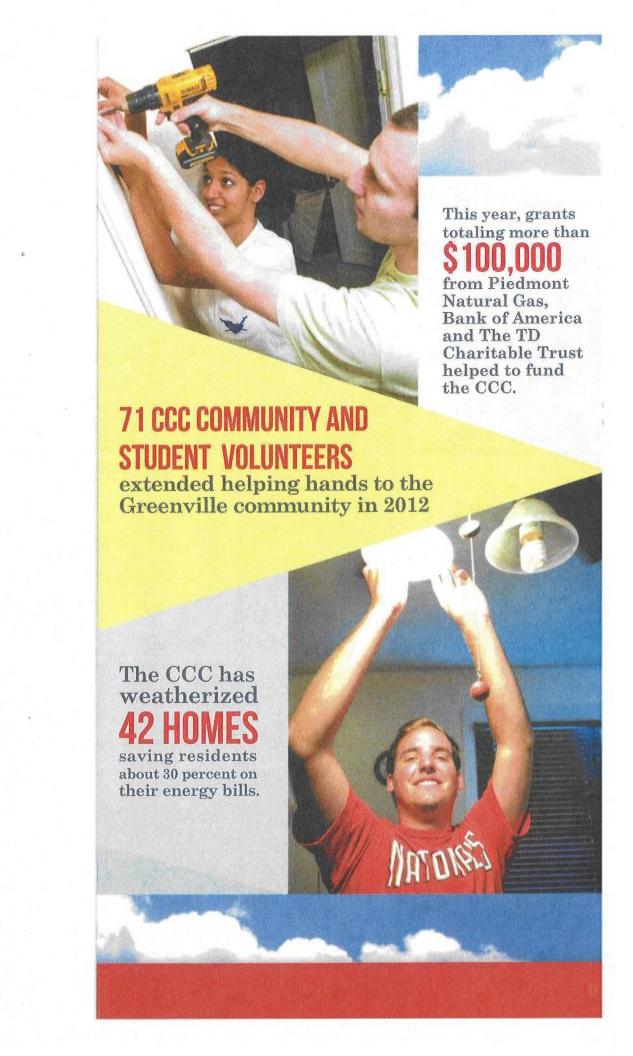
This year, grants through the Shi Center totaling more than \$100,000 from Piedmont Natural Gas, Bank of America, and the TD Charitable Trust have helped to fund this good work.



COMMUNITY CONSERVATION CORPS

The mission of the Community Conservation Corps is to reduce energy consumption, promote homeowners' financial stability, and increase environmental awareness in the greater Greenville community.

Founded in 2010 with a pilot weatherization project coordinated by Furman's Shi Center for Sustainability, Community Relations Department, and Heller Service Corps, the Community Conservation Corps strives to provide increased financial stability to low-income homeowners, to educate the community on conservation and environmental sustainability, and to reduce carbon emissions from burning fossil fuels. As a result of their efforts, the CCC aims to be one of the first organizations in South Carolina to claim carbon offsets and to use those offsets to help Furman University achieve carbon neutrality.



FULL COST ANALYSIS

FINANCIAL STABILITY FOR HOMEOWNERS - ECONOMIC

While weatherization doesn't always pay back immediately, the financial savings can pay for the work within four to ten years. Since our clients are provided a free home weatherization, they see the payback immediately on their utility bills. Monthly savings average around thirty percent, saving many of our homeowners over \$1,000 annually.

ASSESSING ENERGY SAVINGS AND OFFSETS — ENVIRONMENTAL

A client's utility bill reflects the amount of energy saved due to reduced electricity and gas usage. The CCC can determine how many tons of coal or natural gas were offset due to the energy use reduction and extrapolate the reduction of fossil fuels to measure the amount of metric tons of carbon that are offset from being released into the atmosphere.

GATHERING COMMUNITY FEEDBACK - SOCIAL

Comments from our clients and neighbors are the best reflection of the CCC's social impact. Families with allergies or asthma often comment that weatherization has helped tighten their home and kept allergens at bay, and many clients notice that their houses are significantly easier to heat or cool. This positive feedback has helped to generate awareness of the CCC throughout the Greenville community.

PARTNERS FOR A MORE SUSTAINABLE GREENVILLE

The foundation of the CCC's success is its continued commitment to community education and outreach. CCC Associates Andy Wallin and Laura Kate Steadman routinely attended meetings in West Greenvile, the Poinsett District, and other community events, helping the program attract new clients and spread the word about the benefits of weatherization.

HABITAT FOR HUMANITY PARTNERSHIP ANNOUNCEMENT

In summer of 2012, the CCC was awarded a grant from the Bank of America Foundation in conjunction with the Greenville County Redevelopment Authority to weatherize three homes in the Poinsett District as part of Furman's Poinsett District Revitalization Project.

In April of 2013, the CCC partnered with Habitat for Humanity of Greenville County on the first of several homes located within the Poinsett Corridor. The weatherization was such a success that both parties agreed to form a long-term partnership to continue to strengthen their collective ability to address the need for energy efficient low-income owner-occupied housing throughout the Greenville area. This partnership will serve as a sustainable method of not only reducing consumer utility bills and greenhouse gas pollution, but will also grant the CCC more opportunities to incorporate volunteers in its projects.

STUDENT VOLUNTEERS

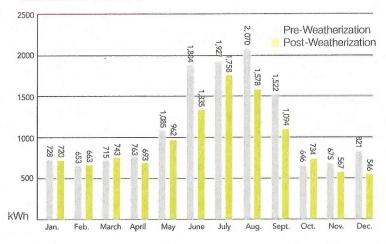
The CCC has worked with student volunteers from Furman's Habitat for Humanity Chapter, the Earth and Environmental Science Department, Heller Service Corps, Shucker Leadership Institute, Shi Center Student Fellows, Bartram Society, a variety of sustainability-related classes, Sigma Nu Fraternity, and Pi Kappa Phi Fraternity.

THE BIG PICTURE

Each CCC client is asked to submit a year's worth of utility bills before a weatherization. Once the weatherization is complete the homeowner must submit their monthly utility bills for two years. In all, the CCC collects three years worth of natural gas and electricity consumption data for each weatherized house, allowing for a complete home energy analysis. By comparing both energy savings and monetary savings for each house, the CCC calculates the average energy saved per client and estimates the total carbon dioxide avoided by all clients.

In years past, the CCC has struggled collecting utility bill data from clients after their home has been weatherized. This year, as part of a grant from the TD Charitable Trust, Upstate Forever made it possible for the CCC to use a disclosure form that allows clients to release years of utility data without having to send their bills in every month. Since then the CCC has collected a full year of both pre- and post-weatherization utility data from twelve clients.

ELECTRICITY USAGE



WAYS TO WEATHERIZE

- · Identify where air is leaking then seal cracks and holes.
- · Blow cellulose insulation into the attic and put insulation in the walls and crawl space.
- · Replace less efficient incandescent bulbs with CFL or LED bulbs.
- · Install low-flow aerators and faucet heads to reduce hot water usage.
- Install CO monitors on every floor of the house and smoke detectors in every bedroom.
- Ensure that any gas leak will draft out of the house due to a positive air pressure inside the house.
- Keep thermostat set between 68 and 72 degrees in the winter and 72 and 76 degrees in the summer. Leave thermostat at one temperature. Keep doors and windows closed.
- · Insulate hot water pipes and water heater.

WE WANT TO SAY THANK YOU

TO THE FOLLOWING ORGANIZATIONS THAT HAVE MADE THE CCC POSSIBLE.

David E. Shi Center for Sustainability
AmeriCorps
United Way of Greenville County
Greenville County Redevelopment Authority
City of Greenville
Upstate Forever

Carolina Energy Savers, LLC

Max Building Performance, LLC

Habitat for Humanity of Greenville County

Piedmont Natural Gas
TD Charitable Foundation
Bank of America Charitable Foundation
Arthur Vining Davis Foundation



Program offers weatherization assistance

By Cheryl P. Allen;, Tribune-Times Writer;

3:44 p.m. EST January 14, 2014



Mauidin resident Andy Wallin couldn't remember the last time the Upstate had been that cold, referring to the recent polar vortex-laced temperatures that hit the United States. "The weather makes it worse because it makes your (heating) unit work harder," he said. "So it's not good for your home."

(Photo: CHERYL P. ALLEN, STAFF)

He would know. He helps people make their homes more energy efficient, not just for the winter but year-round.

Wallin is program coordinator for The Community Conservation Corps. The corps' goal is to help households in the greater Greenville community become more energy efficient while promoting sustainability and

conservation.

The corps, which is housed at Furman University's David E. Shi Center for Sustainability, offers free weatherization assistance for qualifying homeowners.

A recent partnership with Habitat for Humanity of Greenville County will allow more homeowners to take advantage of the program, Wallin said. Piedmont Natural Gas is funding the program.

Homeowners in the Golden Strip, as well as in other parts of the county, have already taken advantage of the program. "We're glad to help anywhere in the county," he said. "We don't operate on an emergency basis." Interested homeowners can contact Wallin at 864-294-3680 or andy.wallin@furman.edu.

Weatherization services include energy audits, insulation, weatherstripping, water heater blankets, ductwork inspection, energy efficient CFL buibs and water-saving faucet aerators. Energy bills are monitored before and after services are rendered. "Most of the time our clients find between a 15 to 35 percent of savings," Wallin said.

One of the more beneficial aspects is insulation in the attic, especially for the winter months, said Ben Deliinger, director of construction for Habitat for Humanity of Greenville County. "Your heat is rising, and if there is nothing there to act as a blanket ... that heat can simply travel up and right out of the house."

Outside of the program, costs for such services could run from a few hundred dollars into the thousands, Dellinger said.

"Each project is going to be different from the previous one because each house is different," Deilinger said. Some varying factors include the age of the home, current weather conditions and assessing what improvement would have the most impact.

"You don't want to take your house and make it into a complete construction project, but you can do some little things and you might be able to save yourself a few dollars per month on your utility costs," Dellinger said. "And everybody is looking for ways to reduce their monthly expenses."

Staff Writer Cheryl P. Allen can be reached at 864-298-4026 or followed on Twitter @ CPAllenNawz

Read or Share this story: http://grnoi.co/KhpULr

CERTIFICATE OF SERVICE

The undersigned hereby certifies that a copy of the attached *Energy Efficiency Program Report* is being served this date electronically and via UPS Overnight upon:

Jeffrey M. Nelson
Shannon B. Hudson
Office of Regulatory Staff
1401 Main Street
Suite 900
Columbia, South Carolina 29201
jnelson@regstaff.sc.gov
shudson@regstaff.sc.gov

And that a copy of the attached *Energy Efficiency Program Report* is being served this date electronically or via U.S. Mail upon:

David Carpenter
Vice President – Planning and Regulatory Affairs
Piedmont Natural Gas Company, Inc.
Post Office Box 33068
Charlotte, NC 28233
david.carpenter@piedmontng.com

Pia Powers
Director - Regulatory Affairs
Piedmont Natural Gas Company, Inc.
Post Office Box 33068
Charlotte, NC 28233
pia.powers@piedmontng.com

Thomas C. Tinsley 384 Old Greenville Highway Spartanburg, SC 29301-5241

This the 12th day of June, 2014.

<u>s/ James H. Jeffries</u> IV James H. Jeffries IV